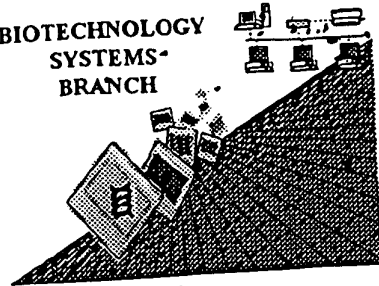


RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY
SYSTEMS-
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09 659 983C

Source: OIPE

Date Processed by STIC: 09/18/2001

RECEIVED

NOV 13 2001

TECH CENTER 1600/2900

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST 25. Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
<http://www.uspto.gov/web/offices/pac/checker>

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NOV 13 2001

Raw Sequence Listing Error Summary

TECH CENTER 1600/2900

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09659 9830

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

#21/Jan

11-15-01

OIPE

RAW SEQUENCE LISTING

DATE: 09/18/2001

PATENT APPLICATION: US/09/659,983C

TIME: 13:02:52

Input Set : A:\ES.txt

Output Set: N:\CRF3\09182001\I659983C.raw

5 <110> APPLICANT: Meloen, Robert Hans
 7 Oonk, Hendrica Berendina
 11 <120> TITLE OF INVENTION: An Improved Peptide, Immunogenic Composition and Vaccine or
 Medical
 12 Preparation, a
 13 Method to Immunise Animals Against the Hormone LHRH, and Analogs of the LHRH
 14 Tandem
 15 Repeat Peptide and their Use as Vaccine
 19 <130> FILE REFERENCE: 2183-4518US
 23 <140> CURRENT APPLICATION NUMBER: 09/659,983C
 25 <141> CURRENT FILING DATE: 2000-09-12
 29 <150> PRIOR APPLICATION NUMBER: US 09/274,048
 31 <151> PRIOR FILING DATE: 1999-03-22
 35 <150> PRIOR APPLICATION NUMBER: US 08/981,557
 37 <151> PRIOR FILING DATE: 1995-06-07
 41 <150> PRIOR APPLICATION NUMBER: PCT/NL96/00223
 43 <151> PRIOR FILING DATE: 1996-06-06
 47 <150> PRIOR APPLICATION NUMBER: US 08/447,298
 49 <151> PRIOR FILING DATE: 1995-06-07
 53 <150> PRIOR APPLICATION NUMBER: US 08/476,013
 55 <151> PRIOR FILING DATE: 1995-06-07
 59 <160> NUMBER OF SEQ ID NOS: 13
 63 <170> SOFTWARE: PatentIn version 3.0
 67 <210> SEQ ID NO: 1
 69 <211> LENGTH: 10
 71 <212> TYPE: PRT
 73 <213> ORGANISM: Sus scrofa
 77 <220> FEATURE:
 79 <221> NAME/KEY: PEPTIDE
 81 <222> LOCATION: (1)..(1)
 83 <223> OTHER INFORMATION: X=pyroglutamic acid
 87 <220> FEATURE:
 89 <221> NAME/KEY: PEPTIDE
 91 <222> LOCATION: (10)..(10)
 93 <223> OTHER INFORMATION: X=Gly-NH2
 97 <400> SEQUENCE: 1
 W--> 99 Xaa His Trp Ser Tyr Gly Leu Arg Pro Xaa
 100 1 5 10
 102 <210> SEQ ID NO: 2
 104 <211> LENGTH: 10
 106 <212> TYPE: PRT
 108 <213> ORGANISM: Homo sapiens
 112 <220> FEATURE:
 114 <221> NAME/KEY: PEPTIDE
 116 <222> LOCATION: (1)..(1)
 118 <223> OTHER INFORMATION: X=pyroglutamic acid
 122 <220> FEATURE:
 124 <221> NAME/KEY: PEPTIDE

Does Not Comply
Corrected Diskette Needed

See page 6 of 8

RAW SEQUENCE LISTING

DATE: 09/18/2001

PATENT APPLICATION: US/09/659,983C

TIME: 13:02:52

Input Set : A:\ES.txt

Output Set: N:\CRF3\09182001\I659983C.raw

126 <222> LOCATION: (10)..(10)
 128 <223> OTHER INFORMATION: X=Gly-NH2
 132 <400> SEQUENCE: 2
 W--> 134 Xaa His Trp Ser His Gly Trp Tyr Pro Xaa
 135 1 5 10
 137 <210> SEQ ID NO: 3
 139 <211> LENGTH: 20
 141 <212> TYPE: PRT
 C--> 143 <213> ORGANISM: artificial
 147 <220> FEATURE:
 149 <223> OTHER INFORMATION: A peptide suitable for eliciting an immune response against
 forms
 150 GnRH/ LHRH
 152 <220> FEATURE:
 154 <221> NAME/KEY: PEPTIDE
 156 <222> LOCATION: (1)..(1)
 158 <223> OTHER INFORMATION: X=pyroglutamic acid or Gln with attached tail of one or more
 addi
 159 tional amino acid
 163 <220> FEATURE:
 165 <221> NAME/KEY: PEPTIDE
 167 <222> LOCATION: (3)..(3)
 169 <223> OTHER INFORMATION: X=Trp or N(indole)formyl-tryptophan
 173 <220> FEATURE:
 175 <221> NAME/KEY: SITE
 177 <222> LOCATION: (10)..(11)
 179 <223> OTHER INFORMATION: there is either a direct bond or a spacer group between Gly
 at po
 180 sition 10 and Gln at position 11
 184 <220> FEATURE:
 186 <221> NAME/KEY: PEPTIDE
 188 <222> LOCATION: (13)..(13)
 190 <223> OTHER INFORMATION: X=Trp or N(indole)formyl-tryptophan
 194 <220> FEATURE:
 196 <221> NAME/KEY: PEPTIDE
 198 <222> LOCATION: (20)..(20)
 200 <223> OTHER INFORMATION: X=Gly-NH2 or Gly with attached tail of one or more amino
 acids
 204 <220> FEATURE:
 206 <221> NAME/KEY: VARIANT
 208 <222> LOCATION: (10)..(19)
 210 <223> OTHER INFORMATION: variable repeat sequence <>10-19
 214 <400> SEQUENCE: 3
 W--> 216 Xaa His Xaa Ser Tyr Gly Leu Arg Pro Gly Gln His Xaa Ser Tyr Gly
 217 1 5 10 15
 W--> 219 Leu Arg Pro Xaa
 220 20
 222 <210> SEQ ID NO: 4
 224 <211> LENGTH: 21
 226 <212> TYPE: PRT
 C--> 228 <213> ORGANISM: artificial
 232 <220> FEATURE:
 234 <223> OTHER INFORMATION: A peptide suitable for eliciting an immune response against

forms

RAW SEQUENCE LISTING

DATE: 09/18/2001

PATENT APPLICATION: US/09/659,983C

TIME: 13:02:52

Input Set : A:\ES.txt

Output Set: N:\CRF3\09182001\I659983C.raw

```

235      GnRH/ LHRH
237 <220> FEATURE:
239 <221> NAME/KEY: PEPTIDE
241 <222> LOCATION: (1)..(1)
243 <223> OTHER INFORMATION: X=pyroglutamic acid
247 <220> FEATURE:
249 <221> NAME/KEY: PEPTIDE
251 <222> LOCATION: (6)..(6)
253 <223> OTHER INFORMATION: X=D-Lys
257 <220> FEATURE:
259 <221> NAME/KEY: PEPTIDE
261 <222> LOCATION: (11)..(11)
263 <223> OTHER INFORMATION: X=Gly or Gly preceded by a spacer
267 <220> FEATURE:
269 <221> NAME/KEY: PEPTIDE
271 <222> LOCATION: (16)..(16)
273 <223> OTHER INFORMATION: X=D-Lys
277 <220> FEATURE:
279 <221> NAME/KEY: PEPTIDE
281 <222> LOCATION: (21)..(21)
283 <223> OTHER INFORMATION: X=Cys-NH2
287 <400> SEQUENCE: 4
W--> 289 Xaa His Thr Ser Tyr Xaa Leu Arg Pro Gly Xaa His Thr Ser Tyr Xaa
      290 1          5          10          15
W--> 292 Leu Arg Pro Gly Xaa
      293          20
295 <210> SEQ ID NO: 5
297 <211> LENGTH: 21
299 <212> TYPE: PRT
C--> 301 <213> ORGANISM: artificial
305 <220> FEATURE:
307 <223> OTHER INFORMATION: A peptide suitable for eliciting an immune response against
forms
308      GnRH/ LHRH
310 <220> FEATURE:
312 <221> NAME/KEY: PEPTIDE
314 <222> LOCATION: (1)..(1)
316 <223> OTHER INFORMATION: X=pyroglutamic acid
320 <220> FEATURE:
322 <221> NAME/KEY: PEPTIDE
324 <222> LOCATION: (4)..(4)
326 <223> OTHER INFORMATION: X=amino acid substitution
330 <220> FEATURE:
332 <221> NAME/KEY: PEPTIDE
334 <222> LOCATION: (6)..(6)
336 <223> OTHER INFORMATION: X=D-Lys
340 <220> FEATURE:
342 <221> NAME/KEY: PEPTIDE
344 <222> LOCATION: (11)..(11)
346 <223> OTHER INFORMATION: X=Gly or Gly preceded by a spacer

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RAW SEQUENCE LISTING

DATE: 09/18/2001

PATENT APPLICATION: US/09/659,983C

TIME: 13:02:52

Input Set : A:\ES.txt

Output Set: N:\CRF3\09182001\I659983C.raw

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350 <220> FEATURE:
352 <221> NAME/KEY: PEPTIDE
354 <222> LOCATION: (14)..(14)
356 <223> OTHER INFORMATION: X=amino acid substitution
360 <220> FEATURE:
362 <221> NAME/KEY: PEPTIDE
364 <222> LOCATION: (16)..(16)
366 <223> OTHER INFORMATION: X=D-Lys
370 <220> FEATURE:
372 <221> NAME/KEY: PEPTIDE
374 <222> LOCATION: (21)..(21)
376 <223> OTHER INFORMATION: X=Cys-NH2
380 <400> SEQUENCE:
W--> 382 Xaa His Thr Xaa Tyr Xaa Leu Ala Pro Gly Xaa His Thr Xaa Tyr Xaa
      383 1          5          10          15
W--> 385 Leu Arg Pro Gly Xaa
      386          20
388 <210> SEQ ID NO: 6
390 <211> LENGTH: 21
392 <212> TYPE: PRT
C--> 394 <213> ORGANISM: artificial
398 <220> FEATURE:
400 <223> OTHER INFORMATION: A peptide suitable for eliciting an immune response against
forms
401      GnRH/ LHRH
403 <220> FEATURE:
405 <221> NAME/KEY: PEPTIDE
407 <222> LOCATION: (1)..(1)
409 <223> OTHER INFORMATION: X=pyroglutamic acid
413 <220> FEATURE:
415 <221> NAME/KEY: PEPTIDE
417 <222> LOCATION: (6)..(6)
419 <223> OTHER INFORMATION: X=D-Lys
423 <220> FEATURE:
425 <221> NAME/KEY: PEPTIDE
427 <222> LOCATION: (8)..(8)
429 <223> OTHER INFORMATION: X=amino acid substitution
433 <220> FEATURE:
435 <221> NAME/KEY: PEPTIDE
437 <222> LOCATION: (11)..(11)
439 <223> OTHER INFORMATION: X=Gly or Gly preceded by a spacer
443 <220> FEATURE:
445 <221> NAME/KEY: PEPTIDE
447 <222> LOCATION: (16)..(16)
449 <223> OTHER INFORMATION: X=D-Lys
453 <220> FEATURE:
455 <221> NAME/KEY: PEPTIDE
457 <222> LOCATION: (18)..(18)
459 <223> OTHER INFORMATION: X=amino acid substitution
463 <220> FEATURE:

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/659,983C

DATE: 09/18/2001
TIME: 13:02:52

Input Set : A:\ES.txt

Output Set: N:\CRF3\09182001\I659983C.raw

465 <221> NAME/KEY: PEPTIDE
467 <222> LOCATION: (21)..(21)
469 <223> OTHER INFORMATION: X=Cys-NH2
473 <400> SEQUENCE: 6
W--> 475 Xaa His Thr Ser Tyr Xaa Leu Xaa Pro Gly Xaa His Thr Ser Tyr Xaa
476 1 5 10 15
W--> 478 Leu Xaa Pro Gly Xaa
479 20
481 <210> SEQ ID NO: 7
483 <211> LENGTH: 21
485 <212> TYPE: PRT
C--> 487 <213> ORGANISM: artificial FYI: "Artificial Sequence" or the preferred terminology
491 <220> FEATURE:
493 <223> OTHER INFORMATION: A peptide suitable for eliciting an immune response against forms
494 GnRH/ LHRH
496 <220> FEATURE:
498 <221> NAME/KEY: PEPTIDE
500 <222> LOCATION: (1)..(1)
502 <223> OTHER INFORMATION: X=pyroglutamic acid
506 <220> FEATURE:
508 <221> NAME/KEY: PEPTIDE
510 <222> LOCATION: (6)..(6)
512 <223> OTHER INFORMATION: X=D-Lys
516 <220> FEATURE:
518 <221> NAME/KEY: PEPTIDE
520 <222> LOCATION: (10)..(10)
522 <223> OTHER INFORMATION: X=amino acid substitution
526 <220> FEATURE:
528 <221> NAME/KEY: PEPTIDE
530 <222> LOCATION: (11)..(11)
532 <223> OTHER INFORMATION: X=Gly or Gly preceded by a spacer
536 <220> FEATURE:
538 <221> NAME/KEY: PEPTIDE
540 <222> LOCATION: (20)..(20)
542 <223> OTHER INFORMATION: X=amino acid substitution
546 <220> FEATURE:
548 <221> NAME/KEY: PEPTIDE
550 <222> LOCATION: (21)..(21)
552 <223> OTHER INFORMATION: X=Cys-NH2
556 <400> SEQUENCE: 7
W--> 558 Xaa His Thr Ser Tyr Xaa Leu Arg Pro Xaa Xaa His Thr Ser Tyr Xaa
559 1 5 10 15
W--> 561 Leu Arg Pro Xaa Xaa
562 20
564 <210> SEQ ID NO: 8
566 <211> LENGTH: 42
568 <212> TYPE: PRT
C--> 570 <213> ORGANISM: artificial
574 <220> FEATURE:

Errored: E Sequence Location
16 is not described in field
222 as an unknown
peptide residue. m4y

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/659,983C

DATE: 09/18/2001

TIME: 13:02:53

Input Set : A:\ES.txt

Output Set: N:\CRF3\09182001\I659983C.raw

L:99 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:143 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3
L:216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:228 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:301 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5
L:382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:394 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6
L:475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:478 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:487 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7
L:558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:570 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8
L:671 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:674 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:686 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:747 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:759 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:820 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:823 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:832 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:913 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:916 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:925 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12
L:1006 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:1009 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:1018 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13
L:1089 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:1092 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13